

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: M. Rignon Lentz

Serial No.: 09/709,045

Art Unit: Not Yet Assigned

Filed: November 10, 2000

Examiner: Not Yet Assigned

For: METHOD AND SYSTEM TO REMOVE CYTOKINE INHIBITOR IN PATIENTS

Assistant Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicant submits an Information Disclosure Statement, including three (3) pages of Form PTO-1449 and a copy of each document cited therein.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 01-2507.

U.S. Patents

<u>Number</u>	<u>Issue Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
4,708,713	11-24-1987	Lentz	604/5
5,135,919	08-04-1992	Folkman et al.	514/56
5,147,638	09-15-1992	Esmon et al.	424/85.5
5,290,807	03-01-1994	Folkman et al.	514/475
5,629,327	05-13-1997	D'Amato	514/323
5,639,725	06-17-1997	O'Reilly et al.	514/12

5,698,586	12-16-1997	Kishimoto et al.	514/475
5,712,291	06-27-1998	D'Amato	514/323
5,713,491	02-03-1998	Hughes et al.	222/129
5,716,981	02-10-1998	Hunter et al.	514/449
5,733,876	03-31-1998	O'Reilly et al.	514/12

### Publications

ANDREWS, et al., "Characterization of the receptor for tumor necrosis factor (TNF) and lymphotoxin LT) on human T lymphocytes: TNF and LT differ in their receptor binding properties and the induction of MHC class I proteins on a human CD4+ T cell hybridoma," *J Immunol* 144:2582-2591 (1990).

CHEN, et al., "Soluble TNF-a receptors are constitutively shed and downregulate adhesion molecule expression in malignant gliomas," *J. Neuropathol. Exp. Neurol.* 56(5):541-550 (1997).

CLACKSON, et al., "Making antibody fragments using phage display libraries," *Nature* 352:624-688 (1991).

DAUGHERTY, et al., "Polymerase chain reaction facilitates the cloning, CDR-grafting, and rapid expression of a , murine monoclonal antibody directed against the CD18 component of leukocyte integrins," *Nucl. Acids Res.* 19:2471-2476 (1991).

EY, et al., "Isolation of pure IgG<sub>1</sub>, IgG<sub>2a</sub>, and IgG<sub>2b</sub>. immunoglobulins from mouse serum using protein A-Sepharose," *Immunochemistry* 15:429-436 (1978).

FEINMAN, et al., "Tumor necrosis factor is a important mediator of tumor cell killing by human monocytes," *J Immunol* 138:635 (1987).

GATANAGA, et al., "Identification of TNF-LT blocking factor(s) in the serum and ultrafiltrates of human cancer patients," *Lymphokine Res* 9:225-9 (1990).

HARANAKA, et al, "Cytotoxic activity of tumor necrosis factor (TNF) on human cancer cells in vitro," *Jpn J Exp Med* 51:191 (1981).

Hemostasis and Thrombosis: Basic Principles and Clinical Practice 2nd Ed., Colman, R.W., et al., p. 263 (J.B.Lippincott, Philadelphia, PA 1987).

HOWARD, et al., "Vaccinia virus homologues of the Shope fibroma virus inverted terminal repeat proteins and a discontinuous ORF related to the tumor necrosis factor receptor family," *Virology* 180:633-664 (1991).

JABLONSKA & PEITRUSKA, "Release of soluble tumor necrosis factor receptors from polymorphonuclear cells of breast cancer patients," *Arch. Immunol. Ther. Exp. (Warsz)* 45(5-6)449-453 (1997).

KABAT, et al., Sequences of Proteins of Immunological Interest 4<sup>th</sup> Ed. (U.S. Dept. Health and Human Services, Bethesda, MD, 1987).

LANGKOPF, et al., "Soluble tumor necrosis factor receptors as prognostic factors in cancer patients," *Lancet* 344:57-58 (1994).

MATHIAS, et al., "Activation of the Sphingomyelin signaling pathway intact EL4 cells and in a cell-free system by IL-1b," *Science* 259:519-522 (1993).

MATSCHINER, et al., Current Advances in Vitamin K Research, pp. 135-140, John W. Suttie, ed. (Elsevier Science Publishing Co., Inc. 1988).

OLD, Antitumor activity of microbial products and tumor necrosis factor, and Bonavida B, et al., (eds): *Tumor Necrosis Factor/Cachecin and Related Cytokines*, Basell, Karger, p7 (1988).

PHILIP, et al., "Tumor necrosis factor as immunomodulator and mediator of monocyte cytotoxicity induced by itself, Gamma-interferon and Interleukin-1," *Nature* 323:86 (1986).

URBAN, et al., "Tumor necrosis factor: A potent effector molecule for tumor cell killing by activated macrophages," *Proc Natl Acad Sci USA* 83:5233 (1986).

ZIEGLER-HEITBROCK, et al., "Tumor necrosis factor as effector molecule in monocyte-mediated cytotoxicity," *Cancer Res* 46:5947 (1986).

**Remarks**

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicant invites the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicant is of the opinion that his claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,



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Reg. No. 31,284

Dated: March 5, 2001

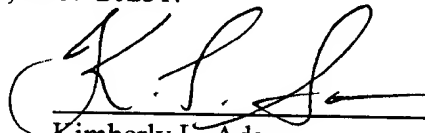
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INFORMATION DISCLOSURE STATEMENT

**Certificate of Mailing under 37 C.F.R. § 1.8(a)**

I hereby certify that this Information Disclosure Statement, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: March 5, 2001

  
Kimberly L. Adams